



★ Distance Between Two Points



1

You have to create two classes, *Point2D*, the super class, and its derived class, *Point3D*.

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In the given *main* method, we are parsing six values that represent point coordinates. Here, x_1 , y_1 , z_1 represent the coordinates of the *first* point, and x_2 , y_2 , z_2 represent the coordinates of the *second* point. You have to implement the two classes and their required methods so that the given main method prints the *2D*, as well as the *3D* distance between the two points.

$$\text{2D distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$
$$\text{3D distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2 + (z_2 - z_1)^2}$$



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Original code



Java 7



```
1 ▶ import java.util.*;
```

```
4
```

```
5
```

```
6
```

```
7 //Enter your code here
```